



Industrial Energy Consumers of America

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46 Month Natural Gas Crisis has Cost U.S. Consumers Over \$130 Billion

Executive Summary

The U.S. natural gas crisis began 46 months ago in June, 2000 and has had a staggering direct and indirect economic impact on all consumers, the U.S. economy and especially on manufacturing. Residential, commercial and industrial consumers have paid \$130 billion dollars more for natural gas during the 46-month natural gas crisis when compared to the price paid for the previous 46 month period, an 86 percent increase. Unfortunately, there is no end in sight to these high and sustained natural gas prices that are the highest in the world.

The increased price of natural gas has cost industrial consumers \$66 billion, residential consumers \$39 billion and commercial consumers \$25 billion. Every penny of the \$130 billion could have been prevented and was totally unnecessary. The U. S. is blessed with enormous natural gas reserves yet we do not lift drilling moratoriums.

Drilling for more natural gas and the recent California forest fires are a perfect analogy. In the name of protecting forests, certain groups fought efforts to thin the trees out and to take a balanced approach to managing the forests. Now, everyone knows that balance is needed, that forests should be thinned and there is a price to pay for inaction.

In the case of the forest fires, the people of California became the victim. In the last 46 months, all consumers, including a lot of families with fixed income, became the victim of high natural gas prices. Manufacturing workers, who lost their jobs to overseas manufacturers with cheaper natural gas, also became the victim. The jobs lost may never return.

When prices of natural gas rose significantly in June of 2000, it began to impact manufacturing jobs immediately and still is today. Manufacturing employment has fallen for 43 consecutive months. Since July 2000, the number of factory jobs is down by over 2.8 million.

Every U.S. economic recession has been preceded by high-energy prices and the recent recession was no different. IECA believes the natural gas crisis started in June 2000.

Government officials say the U.S. recession officially began in March 2001. In our view the US economy is unlikely to fully recover without globally competitive energy.

High sustained natural gas prices are a hidden tax on consumers, depressing disposable personal income and savings, and ultimately consumer spending which accounts for two-thirds of the economy. High natural gas prices are a tax on every person and company because natural gas is used as both a fuel and raw material for the production of everything from fertilizer to plastics for computers to heating homes and water. Sustained high natural gas prices impede economic growth and severely impacts competitiveness of industry.

The Real Cost is Much More

The real cost of the crisis is much more than \$130 billion when one considers other direct and indirect impacts of sustained high prices on industrial and residential consumers.

The \$130 billion cost estimate does not include:

- Consumption of natural gas by electric utilities and the ultimate impact high prices have caused by increasing the price of electricity.
- Lower demand for natural gas by manufacturing because of “demand destruction,” caused by high prices.
- Reduction of operating rates in the manufacturing sector and the resultant loss of efficient capacity utilization caused by high natural gas prices.
- Impact to downstream customers. For example, farmers have reduced their consumption of high cost natural gas based fertilizers resulting in lower agricultural crop yields, which leads to higher food prices for all Americans.
- Loss of manufacturing jobs, plant shutdowns, corporate bankruptcies, loss of capitalization, loss of competitiveness and profitability.
- Impact to residential electricity bills, higher food cost and the difficult choices for fixed income families.
- Financial loss of corporate related tax income and higher heating and cooling bills on states, cities, county governments, school systems and financial pressure on human services.

The Impact of High Natural Gas Costs on Manufacturing is Significant

Manufacturing plays an important role in the economic health of our country and we must recognize that affordable energy, including natural gas, is essential. In the past, the affordability of U.S. energy was a key factor in manufacturing building their factories here. Now, the non-globally competitive price of natural gas and natural gas feedstock is forcing manufacturing companies to produce their products elsewhere.

According to the National Association of Manufacturers, manufacturing accounts for 22 % of GDP growth, contributes one-third of the economy's productivity growth, creates more business activity and jobs in other sectors than any other industry, performs 62 % of U.S. private sector R&D, pays the highest wages –18 % higher than the national average and makes two-thirds of all U.S. exports.

National Energy Policy Implications

The blame for these high prices does not rest on the oil and gas companies, it rests mostly on federal and state policy makers. Congress and states must work together to break the impasse between the environment and the need to increase supplies of natural gas.

Unfortunately, the end of the crisis is no-where in sight. It is the belief of the Industrial Energy Consumers of America (IECA) that the Energy Policy Act of 2003 will not by itself resolve this crisis. The legislation includes many provisions that will help but these will not be enough to turn this situation around. More is needed.

Resolving the crisis takes a combination of policies. We must increase production of natural gas and increase use of coal for base-load electricity generation. The high price of natural gas is due to the combination of relatively flat natural gas production despite increasing rig count and the significant increase in demand for natural gas by the electric utility industry

Natural gas consumption by the electric utility industry is a major problem. From 1992 to 2002 natural gas demand by the electric utility industry increased 60.5% and accounted for 93.6% of the nations' increase in natural gas demand.

According to the Energy Information Administration (EIA), US natural gas consumption from 1992 to 2002 rose 2.227 billion cubic feet/day, an increase of 11 percent. In that same time period, natural gas consumption from the electric utility industry increased by 2.085 billion cubic feet/day or 60.5 percent. The increased electric utility demand for natural gas accounted for 93.6 percent of the entire US net increase. The EIA forecasts continued large annual increases in natural gas use for power generation. This is unacceptable.

This enormous increased demand without an equivalent increase in supply has increased the price of natural gas on all consumers. The electric utility industry has alternative energy sources to produce power while industrial consumers, farmers and homeowners do not. The current situation puts consumers in competition with the electric utilities for purchases of natural gas and consumers are losing- paying both higher natural gas and electricity prices as a result.

Increasing use of coal for power generation solves this problem. Use of clean coal technology allows use of coal for power generation in an environmentally acceptable manner. Coal has several hundred years of supply and power generation using coal is a low cost option. As a power generation fuel, coal is far more reliable than natural gas

because several months of coal supply can be stored on site, while natural gas is only reliable so long as the gas flows.

Increased demand for natural gas has largely been driven by government air quality regulations. Air quality issues are important and cannot be ignored and we acknowledge the EPA/utility rule making that is underway. The Interstate Air Quality Rule and the Utility Mercury Reduction Rule must be “natural-gas-neutral”. This means the EPA action on this rule must not directly or indirectly increase the demand for natural gas.

There must be a way of accommodating progress in clean air quality while not putting additional pressure on natural gas demand that is costing Americans billions in higher natural gas and electricity prices.

For more information on this report or for information on the Industrial Energy Consumers of America and how you can help increase the affordability of natural gas, please contact us at 202-223-1661 or visit us on the web at www.ieca-us.org.

Sincerely,

Paul N. Cicio
Executive Director

The Industrial Energy Consumers of America is a 501 (C) (6) nonprofit organization created to promote the interests of manufacturing companies for which the availability, use and cost of energy, power or feedstock play a significant role in their ability to compete in domestic and world markets. IECA supports a diverse, robust and affordable supply of energy. IECA membership represents a diverse set of industries including: plastics, cement, paper, food processing, chemicals, fertilizer, insulation, steel, industrial gases, pharmaceutical, and brewing. IECA board members are senior energy procurement managers.

Price Impact Calculation Methodology

The \$130 billion price impact calculation uses the monthly average of the daily published closing price of the Henry Hub spot index price, considered to be the most widely used cash price index in the United States. The 46-month average price from June 2000 to March 2004 was \$4.44/MM Btu. The previous 46-month average price from January 1997 through May 2000 was \$2.39/MM Btu. This means consumers paid \$2.05/MM Btu more for natural gas during the natural gas crisis, an 86 percent increase.

REPORT DATA

Average Price Calculation

	<u>Dollars / MM Btu</u>
Average price of 46 months prior to June, 2000	\$2.39
Average price of 46 months starting with June, 2000	\$4.44
Price Difference	\$2.05
Percent change	85.8%

Price Impact Calculation on Industrial Consumers

<u>Year</u>	<u>Months</u>	<u>Annual Volume, TCF</u>	<u>46 Month Volume, TCF</u>
2000	7	9.40*	5.483
2001	12	8.45*	8.45
2002	12	8.29*	8.29
2003	12	8.06**	8.06
2004	3	8.06**	2.015

Total Volume	32.30 TCF
Total MMBtu	32,298,333,333
Cost Impact	\$66,269,002,592

Price Impact Calculation on Residential Consumers

<u>Year</u>	<u>Months</u>	<u>Annual Volume, TCF</u>	<u>46 Month Volume, TCF</u>
2000	7	4.99*	2.9111
2001	12	4.78*	4.78
2002	12	4.92*	4.92
2003	12	5.07**	5.07
2004	3	5.07**	1.2675

Total Volume	18.95 TCF
Total MMBtu	18,948,333,333
Total	\$38,877,769,259

Price Impact Calculation on Commercial Consumers

<u>Year</u>	<u>Months</u>	<u>Annual Volume, TCF</u>	<u>46 Month Volume, TCF</u>
2000	7	3.22*	1.878
2001	12	3.04*	3.04
2002	12	3.12*	3.12
2003	12	3.15**	3.15
2004	3	3.15**	0.7875

Total Volume	11.98 TCF
Total MMBtu	11,975,833,333
Total	\$22,571,748,703

Henry Hub Monthly Average of Daily Spot Natural Gas Price

	1996	1997	1998	1999	2000	2001	2002	2003	2004
Jan		\$3.99	\$2.25	\$1.80	\$2.36	\$9.91	\$2.61	\$4.96	\$6.15
Feb		\$2.96	\$2.04	\$1.81	\$2.61	\$6.22	\$2.03	\$5.66	\$5.77
Mar		\$1.78	\$2.26	\$1.64	\$2.61	\$5.03	\$2.39	\$9.11	\$5.00
Apr		\$1.85	\$2.32	\$1.88	\$2.89	\$5.35	\$3.40	\$5.14	
May		\$2.51	\$2.27	\$2.35	\$3.08	\$4.87	\$3.36	\$5.12	
Jun		\$2.31	\$2.03	\$2.23	\$4.37	\$3.73	\$3.37	\$5.95	
Jul		\$2.16	\$2.37	\$2.28	\$4.36	\$3.16	\$3.26	\$5.30	
Aug	\$2.30	\$2.19	\$1.93	\$2.62	\$3.83	\$3.19	\$2.95	\$4.69	
Sep	\$1.83	\$2.57	\$1.63	\$2.90	\$4.62	\$2.34	\$3.27	\$4.93	
Oct	\$1.85	\$3.16	\$2.07	\$2.55	\$5.29	\$1.86	\$3.72	\$4.44	
Nov	\$2.72	\$3.30	\$2.00	\$3.06	\$4.50	\$3.16	\$4.13	\$4.45	
Dec	\$3.90	\$2.55	\$2.12	\$2.14	\$6.02	\$2.28	\$4.13	\$4.86	

1 MCF = MM Btu

* Energy Information Agency

** Estimate

March, 2004 price is an estimate